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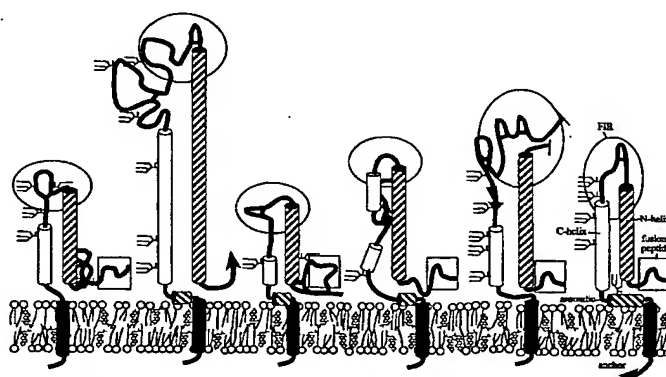
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(54) Title: METHOD OF PREVENTING VIRUS: CELL FUSION BY INHIBITING THE FUNCTION OF THE FUSION INITIATION REGION IN RNA VIRUSES HAVING CLASS I MEMBRANE FUSOGENIC ENVELOPE PROTEINS



Family: Arenavirus	Coronavirus	Filovirus	Orthomyxovirus	Paramyxovirus	Retrovirus
Example: Lassa virus GP2	SARS coronavirus S2	Ebola virus GP2	Influenza virus HA2	Measles virus F1	HIV-1 TM

(57) Abstract: The present invention relates to a method of preventing or inhibiting viral infection of a cell and/or fusion between the envelope of a virus and the membranes of a cell targeted by the virus (thereby preventing delivery of the viral genome into the cell cytoplasm, a step required for viral infection). The present invention particularly relates to the families of RNA viruses, including the arenaviruses, coronaviruses, filoviruses, orthomyxoviruses, paramyxoviruses, and retroviruses, having Class I membrane fusion proteins as the fusion proteins that mediate this fusion process. The present invention provides for a method of identifying a conserved motif or domain called the fusion initiation region (FIR) in these viruses. The present invention further provides for methods of preventing infection by such viruses, by interfering with their FIR. The present invention further provides for methods of treatment and prophylaxis of diseases induced by such viruses.

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